Agriculture Canada

The Commercial Development of CREAMS in Canada

THE COMMERCIAL DEVELOPMENT OF CREAMS IN CANADA

THE PRODUCTS

According to the Canadian Food and Drugs Act, cream is the liquid prepared by separating milk constituents to obtain a liquid with an increased milk-fat content. Processors may add a pH-adjusting agent, a stabilizing agent and, in the case of heat-treated whipping cream, certain other ingredients and food additives.

The Canadian market offers a fairly large variety of creams. These products may differ in their milk fat content, method of processing, packaging and end use.

Canada produces four main types of cream:

— *whipping cream*, which generally contains 32-40% milk fat;
— *table cream*, which may have 15-20% milk fat;
— *sour cream*, a fermented product that usually contains at least 14% milk fat; and
— *cereal cream* (often known as "half-and-half"), which generally contains about 10% milk fat.

In Canada, the generic term "cream", followed by percentage of milk fat, is gradually replacing designations such as table cream, coffee cream, cereal cream and half-and-half cream.

Table 1 shows some data on the nutrient value of various creams in a 15 mL serving. In general, they give us energy, essential fatty acids and vitamin A, as well as traces of carbohydrates and protein.

Products with a long shelf life let industry respond better to Canada's diverse and widely dispersed market. About 20 years ago, several manufacturers introduced portion-cup coffee creamers that were treated by ultra-high temperature (UHT) to extend shelf life, but packaged in sanitized containers. Today, Canada produces aseptically filled UHT-treated cream. Moreover, other types of cream are currently being tested using UHT as well as various other heat treatments with aseptic packaging.

Combined with aseptic packaging, the UHT treatment offers a number of advantages. Refrigerated cream retains its organoleptic properties for many months. Distribution costs decrease, because shipment can take longer and span an unlimited distance. Product returns decrease considerably; improper handling becomes the main cause.

TABLE 1 MAJOR NUTRIENTS OF SOME CREAMS (15 mL serving[1])*

Cream	Energy		Fat	Vitamin A
	kcal	kJ	(g)	RE[2]
Whipping, 35% M.F.[3]	49	206	5	57
Table, 18% M.F.	28	116	3	25
Sour, 14% M.F.	28	118	3	25
Cereal, 12% M.F.	20	84	2	17
Whipped (pressurized[4])	10	43	tr[5]	8

[1] One tablespoon
[2] Retinol equivalent
[3] Milk fat
[4] In aerosol container
[5] tr = trace

Source: Health and Welfare Canada

Within the four main types, we find other Canadian creams. For example, consumers can buy whipped cream in aerosol containers, coffee cream and, in some provinces, double cream and light sour cream. Higher viscosity creams, known as "thicker creams", are also sold. Imported sterilized cream has its own standard in the Dairy Products Regulations of Canada.

[1] This does not represent cream actually consumed but rather what dairies sold to the Canadian public. Thus, consumption is sometimes referred to as "apparent consumption".

MARKET TRENDS

This section discusses major Canadian consumption trends, by province and nationwide. It lists the creams by order of their volume of Canadian production.

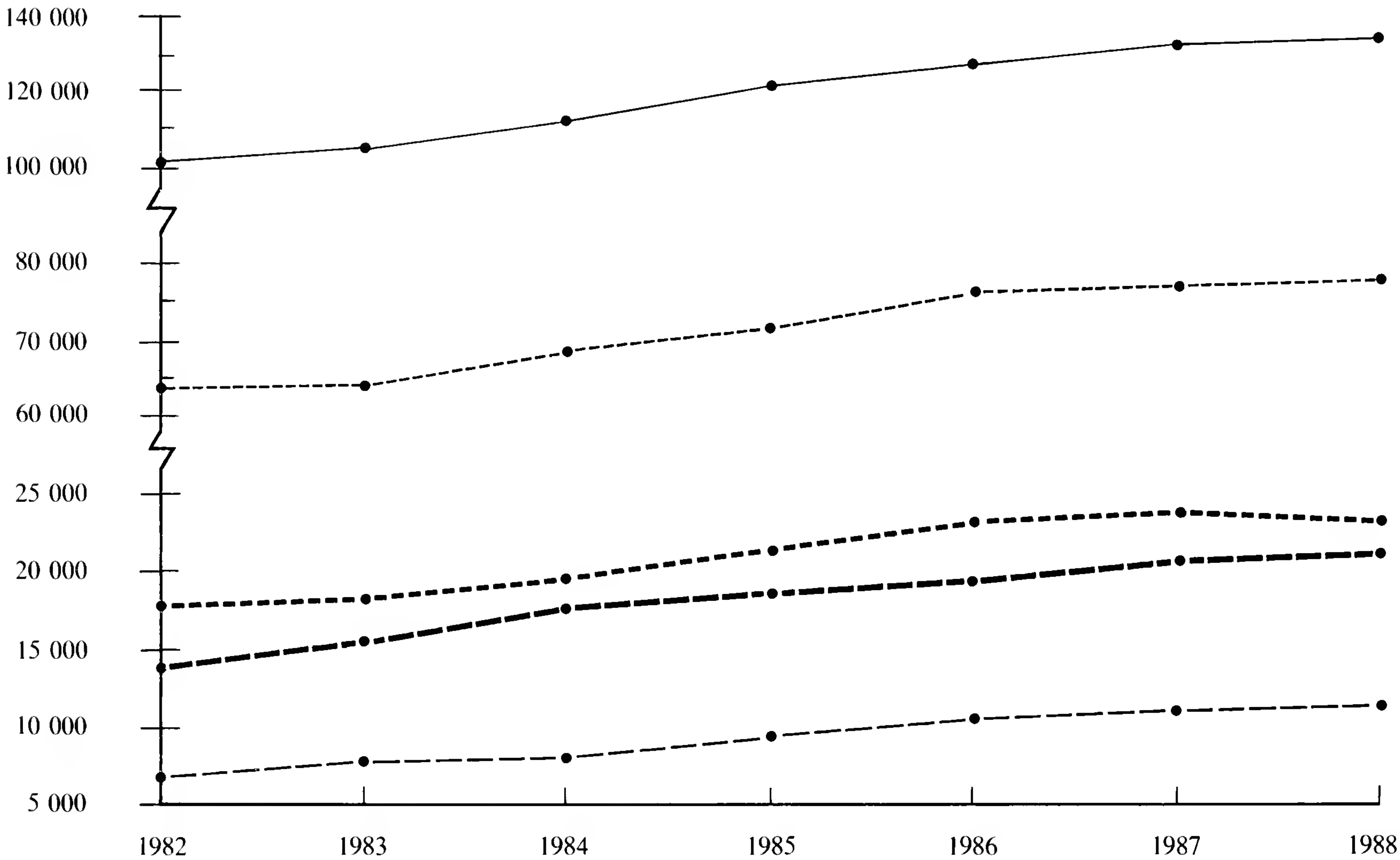
Total consumption[1]

Figure 1 and Table 2 show data for total Canadian consumption.

Between 1982 and 1988, consumption rose from about 102 to 134 million litres, a 32% increase.

FIGURE 1 COMMERCIAL SALES OF CREAM IN CANADA, 1982-88 ('000 L)

Cream	1982	1983	1984	1985	1986	1987	1988
Cereal	63 874	64 121	68 600	72 636	76 018	76 409	77 446
Whipping	17 415	18 365	19 882	21 609	23 195	23 756	23 128
Sour	13 355	15 516	17 491	18 221	19 561	21 113	21 937
Table	6 919	7 371	7 436	9 169	10 153	11 367	11 732
Total	101 563	105 373	113 409	121 635	128 927	132 645	134 243



Source: Statistics Canada

Between 1986 and 1988 alone, it increased by 4%, from 129 million litres to 134 million. Ontario consumed the most in 1988 – 55 million litres – 5% more than during the preceding year. Quebec followed with 29 million, British Columbia with over 20 million and Alberta with 12 million. Although Quebec ranks as one of the highest, its consumption had fallen 8% from 1987. Manitobans used 5 million litres; the remaining provinces registered smaller volumes. New Brunswick showed a strong increase of 8%.

Cereal cream and whipping cream

Reaching 77 million litres, cereal cream consumption rose 2% between 1986 and 1988. In 1988, significant increases occurred in Nova Scotia (5%), British Columbia (4%) and Ontario (4%). Although Quebec's consumption increased by around 20% in both 1985 and 1986, it declined by 3% in 1987 and 5% in 1988.

Consumption of whipping cream decreased 3% in 1988, standing at about 23 million litres, the same as in 1986. However, Alberta increased 5%. In Manitoba and Quebec, consumption decreased by 10% and 8%, respectively.

Sour cream and table cream

Sour cream consumption went from approximately 20 million litres to 22 million between 1986 and 1988, a growth of 12%. In 1988, large increases of 6% occurred in British Columbia and Ontario and 5% in Saskatchewan. Quebec declined by only 2% after decreasing 17% in 1987. In Alberta, consumption decreased by 7%.

In the case of table cream, national consumption expanded strongly – by 16% over 3 years – growing from about 10 million litres to 12 million. In 1988, tremendous growth continued in New Brunswick (44%) and Manitoba (23%). In addition, the year showed significant increases of 12% in Ontario and Prince Edward Island.

TABLE 2 COMMERCIAL SALES OF CREAM IN CANADA, BY PROVINCE, 1986-1988 ('000 L)

Year	Province	Cereal cream	Whipping cream	Sour cream	Table cream	Total
1986	Nfld.	*	*	*	*	*
	P.E.I	*	*	*	79	*
	N.S.	2 336	467	233	*	*
	N.B.	1 357	265	*	398	2 020
	Que.	18 070	8 539	1 726	4 021	32 356
	Ont.	30 509	5 368	9 478	4 740	50 095
	Man.	2 117	919	1 586	76	4 698
	Sask.	1 945	717	1 142	0	3 804
	Alta.	7 047	2 467	1 827	0	11 341
	B.C.	12 398	4 302	3 518	0	20 218
	Canada	76 018	23 195	19 561	10 153	128 927
1987	Nfld.	*	*	*	*	*
	P.E.I.	*	*	*	92	*
	N.S.	2 377	489	*	*	*
	N.B.	1 445	270	0	497	2 212
	Que.	17 590	8 690	1 439	4 348	32 067
	Ont.	31 155	5 394	10 831	5 242	52 622
	Man.	2 353	1 026	1 789	102	5 270
	Sask.	1 973	763	1 228	0	3 964
	Alta.	7 226	2 647	1 906	0	11 779
	B.C.	12 061	4 341	3 597	*	*
	Canada	76 409	23 756	21 113	11 367	132 645
1988	Nfld.	*	*	*	*	*
	P.E.I.	192	72	*	103	*
	N.S.	2 500	497	303	*	*
	N.B.	1 409	262	0	715	2 386
	Que.	16 653	7 787	1 413	3 588	29 441
	Ont.	32 366	5 537	11 491	5 881	55 275
	Man.	2 354	942	1 850	125	5 271
	Sask.	1 968	771	1 284	0	4 023
	Alta.	7 453	2 785	1 774	8	12 020
	B.C.	12 551	4 475	3 822	*	*
	Canada	77 446	23 128	21 937	11 732	134 243

* Confidential

Source: Statistics Canada

Per-capita consumption

The information in Figure 2 and Table 3 refer to per-capita Canadian consumption.

From 1982-88, annual per capita consumption of all creams went from 4.08 to 5.18 L; it rose 2% between 1986 and 1988 alone. During this 3-year period, per-capita consumption in British Columbia never dropped under 7 L, the highest in the country.

Between 1986 and 1988, national per-capita consumption of cereal cream remained stable. For the same period, that of whipping cream decreased by 2%, while that of sour cream and table cream increased by 10% and 13%, respectively.

MARKET POTENTIAL

Canada's population grows about 1% per year and its average age continues to increase. Also, consumer tastes are changing — the growing popularity of low-fat foods, luxury products and convenience foods are among current food trends. Examples include light sour cream, recently introduced to Canada, and ready-to-serve cream-based soups as sold in Europe.

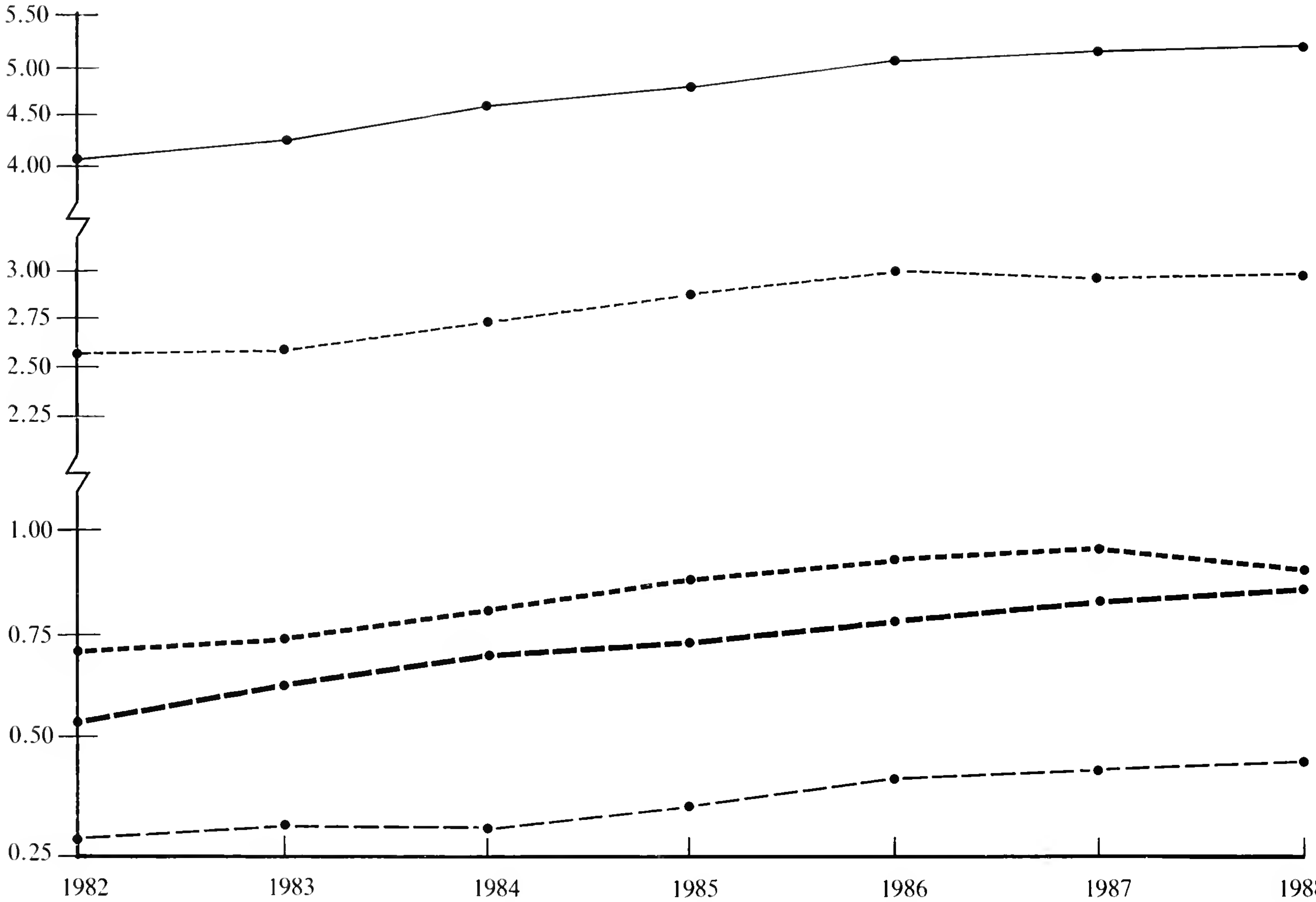
In the dairy industry, product innovation generally helps the market grow significantly. The industry should continue to study the popularity of products that are value-added and with good high-gross margins, such as luxury high-fat products, creams with long shelf life, frozen creams and cream as an ingredient in alcoholic beverages.

Europe leads in the development of various creams and cream-based products. A few innovative products may have a market potential in Canada, such as *crème fraîche*, dessert cream, ready-to-serve milk/cream-based soups and sauces.

Crème fraîche is a basic ingredient of European cream sauces. It is a delicate blend of a lightly cultured heavy cream and fresh heavy cream. Its

FIGURE 2 PER CAPITA CONSUMPTION OF CREAM IN CANADA, 1982-88 (L)

Cream	1982	1983	1984	1985	1986	1987	1988
Cereal	2.56	2.59	2.74	2.88	3.00	2.98	2.99
Whipping	0.70	0.74	0.80	0.86	0.91	0.93	0.89
Sour	0.54	0.63	0.70	0.72	0.77	0.82	0.85
Table	0.28	0.30	0.30	0.36	0.40	0.44	0.45
Total	4.08	4.25	4.54	4.82	5.08	5.17	5.18



Source: Statistics Canada

milk-fat content can range from 18-38%. It has excellent cooking properties and also makes a delicious dessert topping, salad dressing and dip base. The restaurant sector is a main user of this product. For the European manufacturer, the key advantages of *crème fraîche* include good gross-profit margins and probable long-term market growth.

Dessert cream, a dessert topping, contains approximately 12% milk fat. An aseptic/UHT product, it has about 3 months shelf life. Dessert cream can be whipped into an ice cream and presented in a variety of flavors, although Europeans do not sell it as a frozen confection. The main advantages it gives the European processor are good gross-profit margins and a long shelf life.

The United Kingdom market offers some ready-to-serve milk/cream-based soups. The U.K. industry identified traditional consumers of canned soups as the target group. Since these soups are UHT treated and packaged aseptically, they have a shelf life of 6 months or more. The product line includes such soups as tomato, mushroom, leek and potato. Processors chose a slender 500 mL container for its distinctive profile and eye-appeal.

The British took the strategic approach that cream adds premium quality to the product. A main sales argument claims a superior taste and flavor from the "mild" UHT treatment, compared to conventional products sterilized in cans. However, the market is difficult and costly to enter. Market analysts estimated that the introduction of UHT technology would play an important role in revitalizing the stagnant soup market. New products with long shelf life also use real cream in sauces destined for market niches, which give good returns despite the small volumes sold.

In brief, cream sales are growing slowly in Canada. Their future rests on constant research to improve and diversify the market. The dairy industry should try to profit from products and techniques well established in other countries.

TABLE 3 PER CAPITA CONSUMPTION[a] OF CREAM IN CANADA BY PROVINCE, 1986-1988 (L)

Year	Province	Cereal cream	Whipping cream	Sour cream	Table cream	Total[b]
1986	Nfld.	*	*	*	*	*
	P.E.I.	*	*	*	0.63	*
	N.S.	2.67	0.53	0.27	*	*
	N.B.	1.91	0.37	0.00	0.56	2.84
	Que.	2.76	1.30	0.26	0.61	4.93
	Ont.	3.34	0.59	1.04	0.52	5.49
	Man.	1.98	0.86	1.48	0.07	4.39
	Sask.	1.93	0.71	1.13	0.00	3.77
	Alta.	2.97	1.04	0.77	*	*
	B.C.	5.20	1.81	1.48	*	*
	Canada	3.00	0.91	0.77	0.40	5.08
1987	Nfld.	*	*	*	*	*
	P.E.I.	*	*	*	0.72	*
	N.S.	2.71	0.56	*	*	*
	N.B.	2.03	0.38	0.00	0.70	3.11
	Que.	2.67	1.32	0.22	0.66	4.87
	Ont.	3.36	0.58	1.17	0.56	5.67
	Man.	2.18	0.95	1.66	0.09	4.88
	Sask.	1.94	0.75	1.21	0.00	3.90
	Alta.	3.04	1.11	0.80	*	*
	B.C.	4.12	1.48	1.23	*	*
	Canada	2.98	0.93	0.82	0.44	5.17
1988	Nfld.	*	*	*	*	*
	P.E.I.	1.49	0.56	*	0.80	*
	N.S.	2.83	0.56	0.34	*	*
	N.B.	1.97	0.37	0.00	1.00	3.34
	Que.	2.51	1.17	0.21	0.54	4.43
	Ont.	3.43	0.59	1.22	0.62	5.86
	Man.	2.17	0.87	1.71	0.12	4.87
	Sask.	1.94	0.76	1.27	0.00	3.97
	Alta.	3.11	1.16	0.74	*	*
	B.C.	4.20	1.50	1.28	*	*
	Canada	2.99	0.89	0.85	0.45	5.18

[a] Apparent per-capita consumption; see footnote in text. These data are derived from those in Table 2.
[b] This total is obtained on the basis of rounded values.
* Confidential

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Personal communications with many experts from the dairy industry and provincial and federal governments

Cat. No. A22-119/1990

ISBN 0-662-57679-9

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Pub. 5274